

Creole studies and linguistic typology: Part 2

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1. Introduction

In the previous column, I argued that the sampling methodology employed in typological work results in a systematic bias against contact languages, including creole languages. In this column,¹ I will consider how creolists interface with work and insights in linguistic typology. The *World Atlas of Language Structures* (WALS) is currently the most accessible large-scale and broadly oriented typological survey (Haspelmath et al. 2008), and only a few years after its first publication in 2005, it is already having an impact in our field. Of particular interest are attempts to use the WALS to evaluate the typological status of creoles.² In the following, I will focus on work of this kind by Klein (to appear) and Parkvall (2008), who use (mainly) WALS categorizations to assess the extent to which creole languages display linguistic complexity.

There are obvious merits in viewing creoles in a broader linguistic — in this case, typological — context, as Klein and Parkvall have done. Indeed, I look forward to more work which builds bridges between creolist and typological approaches. The critique that follows should, then, be taken as a reflection of the importance of

1. I would like to thank Thomas Klein for making his forthcoming paper available to me, Mikael Parkvall for mailing me his detailed scoring tables, Jan Rijkhoff for correcting some of my views on sampling, Darlene LaCharité for some last-minute assistance, and the editor for his usual prompt and helpful feedback.

2. The current collaborative effort to produce the *Atlas of Pidgin and Creole Language Structures* (APiCS, Michaelis et al. to appear) has been conceived as the pidgin & creole counterpart to the WALS. APiCS collects information on 120 linguistic features surveyed for around 70 pidgin and creole languages. Despite initial attempts to allow different contributors a say in the selection and composition of features, I daresay that the final list will not have completely satisfied anyone, and will have turned out quite unsatisfactory for some — a result which is, perhaps, to be expected in such an endeavor. Nonetheless, I believe that some salient problems arise because of a typological rather than a contact-specialist focus among the editors of the APiCS — but this is an issue for another discussion.

this work. Nevertheless, I will argue that the usefulness of the conclusions drawn by Klein and Parkvall can be challenged on methodological, theoretical, and practical grounds. The methodological challenge pertains to our narrow focus on European-lexifier creoles, which is inevitably reflected in cross-creole work, and skews the results of surveys such that conclusions have validity only for European-lexifier creoles. The theoretical challenge concerns the (often unrecognized) theoretical biases in the feature characterizations used by typologists; simply adopting them means inheriting those biases. Finally, cross-creole surveys can only be as good as the individual descriptions on which they are based: practical challenges arise where the surveying author lacks personal familiarity with the relevant languages, and where descriptions are incomplete or inaccessible.

In the following, I will first consider the manner in which the underrepresentation of creole languages in typological samples might be addressed. I will argue that we, as creolists, do no better at sampling than anyone else; we thus, unwittingly, contribute to ideas held by nonspecialists that creoles form a relatively small and homogeneous class of languages. I then turn to the problem of theoretical bias; the measurement of complexity of syllable structure will illustrate the problem, and show that a different model can yield completely different outcomes when evaluating the complexity of linguistic structure — assuming that the model used recognizes that notion in some way. Next I consider the futility of measuring complexity by counting distinctions: issues such as the treatment of covert markers, the interdependence of features, the weighting of subsystems of grammar, and the problem of adding scores for subsystems which cannot be compared in like manner, all point to the fact that this kind of global measurement is not achievable. Finally, I will rescore Papiamentu using Parkvall's scoring method to demonstrate that the results are fundamentally unsound and completely misrepresent this language — the implication being, naturally, that other languages may be similarly misrepresented.

2. Sampling creole languages

The fact that typological surveys pay scant attention to contact varieties is well illustrated in Rijkhoff & Bakker (1998), where a sampling method which aims to maximize genetic diversity is used to evaluate typological surveys of the late 1980s and 1990s. Rijkhoff & Bakker show that pidgin and creole languages are simply absent altogether from several of these surveys, and that, where included, the number of pidgins and creoles sampled is systematically too low to allow for maximal genetic diversity within that group. As I demonstrated in the first column, the recent large-scale surveys in Haspelmath et al.'s (2008) *World Atlas of Language Structures* have not improved on this situation.

Part of the problem, it appears, is that creolists have not conveyed the rich diversity of pidgin and creole languages to anyone outside the field. For instance, Rijkhoff & Bakker rely on Ruhlen's (1987) classification; she estimates the membership of her class of Pidgins & Creoles at 38, world-wide. Coupled with a method for indexing families for internal diversity, their sampling method calls for 2 Pidgins & Creoles to be included in a typological sample of around 100 languages. Ruhlen's estimate of 38 is, of course, way off the mark, and by extension, so is the estimate of the genetic diversity within that category. By contrast, Smith (to appear) lists close to 500 pidgins and creoles (as well as over 300 mixed languages). Since his listing contains long extinct varieties, overlapping designations and other doubtful cases, it is appropriate to allow for a significant margin of error (but note that it is also true that there are varieties which are not [yet] included). This nevertheless leaves us with a number of extant pidgins and creoles which is many, many times that of Ruhlen's (1987) estimate.

What are the implications of these numbers for typological sampling? It is clear that a more accurate estimate of the numbers of pidgins and creoles world-wide would raise the number of such languages required for good typological sampling considerably, but the manner of their inclusion remains an issue. Would it be sufficient to suggest that typologists simply enlarge their category of 'pidgins and creoles' by a certain number — in other words, that they continue to treat them as a family of sorts? In view of the lack of genetic relations between many of these languages, there seems to be little merit in a solution of this kind. Perhaps European-lexifier contact varieties ought to be included with Indo-European languages, Arabic-lexifier contact varieties with Semitic languages, etc. The likely consequence of such a choice would be an explosion in the size and internal diversity of those families which have spawned large numbers of known contact varieties; their presence in typological surveys ought then to be increased proportionate to the number and size of newly recognized subbranches. In the case of European-lexifier creoles, a further consequence of such a choice would be a dramatic geographic discontinuity of the purported family.³

Alternatively, some creole languages could be grouped into families, and the general guidelines for the representation of families in typological surveys applied to them. For instance, to the extent that we can demonstrate single origins for

3. Dixon's (1997) punctuated equilibrium model suggests an interesting way in which the superstratist view of creole languages, which assigns creole languages to the families of their lexifiers, can be accommodated in a model of language emergence — although he does not seem to think so, referring to creole languages as often resulting from engineered mixing of peoples, and constituting exceptions to 'the normal course of linguistic evolution' (p. 13, fn.6), which he links, in turn, to exceptions to the 'one parent principle' (13).

these languages, Atlantic English Creoles can be considered to constitute a family, with subbranches for groupings such as the Suriname Creole languages. In the previous column, I noted that the former Dutch-lexifier creoles of the Caribbean are best considered isolates, having arisen independently of each other or any other creole⁴ — hence the treatment normally given to language isolates should be extended to them. Finally, contact varieties other than pidgins and creoles pose yet other challenges for sampling methods.

In sum, the data that pidgin and creole languages — which number in the hundreds — might contribute to our understanding of structural diversity and/or to its cross-linguistic distribution has been consistently ignored or, at best, grossly underrepresented in typological surveys. But while this is clearly unacceptable, a simple increase in their numbers in typological samples may not be the best way to address this problem.

It is somewhat disturbing to note that creolists in their cross-creole work also use language samples which are not well put together. For instance, the discussion of creole syntax in Holm's influential (2000) introduction to the field makes reference in particular to Portuguese-lexifier São Tomense, Angolar, and Cape Verdean, Spanish-lexifier Papiamentu and Palenquero, Dutch-lexifier Negerhollands, French-lexifier Lesser Antillean and Haitian, English-lexifier Sranan, Jamaican, Gullah, and Tok Pisin, and Arabic-lexifier Nubi, with occasional examples from other languages thrown in. It is clear that the creoles of the former plantation societies of the Atlantic region are far better represented than any other creoles. To be sure, Holm (2000) simply follows the custom of the field, which has largely occupied itself with the study of European-lexifier varieties, and which has, furthermore, largely focused on those varieties which emerged in the Caribbean or the Atlantic area. Our narrow focus on these languages has contributed in no small measure to the perpetuation of the view among nonspecialists that there are relatively few languages which can be designated '(pidgins and) creoles'. Turning to the creole samples used in the recent work of Klein (to appear) and Parkvall (2008), we note that the same practice has been followed; their selections are provided in Table 1.⁵

To ensure that his sample is representative, Klein includes creoles from all major geographical areas in which these languages occur, and includes creoles with Indo-European lexifiers as well as creoles with non-Indo-European lexifiers. Parkvall can be seen to do much the same. But whether balance is achieved or not

4. But note the suggestion that Papiamentu was involved in the genesis of Negerhollands (Hesseling 1979), Skepi Dutch in the genesis of Berbice Dutch (Smith, Robertson & Williamson 1987).

5. Parkvall's sample of 29 languages includes both pidgins and creoles (Table 3, p. 278), while Klein uses a sample of 32 creoles. Both authors use the term 'creole' to include expanded pidgins.

Table 1. Samples of pidgin and creole languages used in Klein (to appear) and Parkvall (2008)

area	lexifier	creole	Klein		Parkvall	
Atlantic: Caribbean (Klein: 10; Parkvall 11)	Dutch	Berbice Dutch	+	–		
		Negerhollands	+	2	+	1
	English	Ndyuka	+	2	–	2
		Saramaccan	+		+	
		Sranan	–		+	
		Gullah	+		–	
	French	Jamaican	+	2	+	1
		Haitian	+		+	
		St. Lucian	+		+	
		Dominican	–		+	
		Guadeloupean	–		+	
		Martinican	–	2	+	5
	Spanish	Papiamentu	+		+	
		Palenquero	+	2	+	2
Atlantic: West Africa (Klein: 6; Parkvall 6)	English	Krio	+		+	
		Nigerian Pidgin	+	2	+	2
	Portuguese	Kriyol / Guinea Bis- sau Creole	+		+	
		Cape Verdean	+		–	
		Angolar	+		–	
		São Tomense	+		+	
		Annobonense	–		+	
		Principense	–	4	+	4
Africa, non-Indo- European lexifier (Klein: 5; Parkvall: 2)	Arabic	Juba	+		–	
		Kinubi	+		+	
	Kikongo	Kituba	+		–	
	Ubangian	Sango	+		–	
	Swahili	Shaba Swahili	+		–	
	Zulu	Fanakalo	–	5	+	2
Indian Ocean (Klein: 4; Parkvall: 2)	French	Mauritian	+		+	
		Réunionnais	+		–	
		Seychellois	+	3	+	2
	Portuguese	Sri Lankan	+	1	–	0

Table 1. (*continued*)

area	lexifier	creole	Klein		Parkvall	
Asia/Pacific (Klein: 6; Parkvall: 5)	German	Unserdeutsch	+	1	–	0
	English	Bislama	+		+	
		Tok Pisin	+		+	
		Australian Creole	–	2	+	3
	French	Tayo	+	1	+	1
	Portuguese	Papia Kristang	+	1	+	1
Asia/Pacific, non-IE-lexifier (Klein: 1; Parkvall: 0)	Spanish	Zamboangueño	+	1	–	0
	Malay	Baba Malay	+		–	
				1		0
North America (Klein: 0; Parkvall: 1)	Chinook	Chinook Jargon	–		+	
				n/a		1
Other (Klein: 0; Parkvall: 2)	Italian/ Romance	Lingua Franca	–		+	
				n/a		1
	Norwegian & Russian	Russenorsk	–		+	
				n/a		1
Total			32 (25 colonial varieties with European lexifiers)		29 (24 colonial varieties with European lexifiers)	

is very much in the eye of the beholder. First off, each one is likely to have different ideas of how the languages in these categories are related — if at all — and can be represented by other members of the same category. For instance, one could ask whether Haitian and St. Lucian can represent the class of Caribbean French-lexifier creoles, which includes the rather different Guianais of French Guiana and Louisianais. In contrast with Klein's two languages, Parkvall's sample includes five Caribbean French-lexifier creoles — a disproportionately large representation of this group compared to other subgroupings of Atlantic Creoles, and in particular of the Lesser Antillean varieties, but Guianais and Louisianais are, again, not included. Similarly, the inclusion of four West African Portuguese-lexifier creoles in both Klein's and Parkvall's samples may seem disproportionate. Secondly, we may ask whether the non-Indo-European-lexifier varieties are sufficiently well represented. It is interesting to note that Klein and Parkvall have made very different choices in this regard, but in light of the impressive number of such languages (e.g., Versteegh 2008, Smith to appear), it is unlikely that their representation in either of these samples is anywhere near sufficient.

In short, working out a good sample of creole languages is not a simple matter, forcing one to consider issues of geographic spread, historical relatedness, lexifier-spread, and the like, in order to ensure that diversity within this class is maximally represented. We may legitimately ask whether samples such as those illustrated in Table 1, which are heavily dominated by European-lexifier varieties, allow us to draw conclusions about ‘the’ class of creole languages — something which both authors do. In other words, our own samples do not do much better than those of typologists. Specifically, if the lexifier is not European, and the geographic area is not the Atlantic, then creolists, like typologists, frequently survey only a token number of cases. It is not clear to me, then, that surveys of pidgins and creoles achieve any real insight into their typologies.

Moreover, our preoccupation with a limited range of structures has helped to perpetuate the view that these languages form a relatively coherent class — thus giving nonspecialists all the more reason to think that sampling one or two languages will suffice. Klein and Parkvall have to be commended for expanding the range of structures considered: into the still rather underresearched area of phonology in Klein’s case, into a broad range of structures and distinctions in Parkvall’s case. So let’s turn now to some concerns which emerge from a consideration of their work.

3. The theoretical bias in typological categories: For example syllable structure

Klein (to appear) considers the size of phoneme inventories and the complexity of syllable structure in a sample of 32 creole languages against the background of Maddieson’s (2008) typological surveys in the WALS. Maddieson uses a database of 486 languages for his chapter on syllable structures and of 563 and 564 languages for his chapters on consonant and vowel inventories; unsurprisingly, Ndyuka is the only contact variety included. Klein’s reliance on Maddieson’s (2008) categorizations in the WALS means that the usefulness of his findings hinge to a very great extent on the usefulness of the WALS categories. Here, I will use Maddieson’s approach to complexity of syllable structure as an example of their sometimes problematic nature.

Maddieson’s categorizations of syllable structure appear, at first blush, to be straightforward: languages are divided into those which allow simple syllable structures, which can be represented as (C)V (61 languages in his sample), moderately complex syllable structures CVC or CCV, provided the initial cluster contains an approximant as second consonant (274 languages), and complex syllable structures, which naturally pertains to any expansions of these patterns, by allowing

other initial clusters, or by allowing larger clusters either syllable-initially or -finally (150 languages).

After carrying out a similar survey for 32 creole languages, Klein (to appear) finds that 'creole languages cluster in the typological middle', which, in regards to syllable structure, means that they mostly limit syllable complexity to Maddieson's 'moderately complex' type. But Maddieson's categorizations rely on the identification of consonant clusters, and this is not as uncomplicated as might be thought. Moreover, his use of the notions 'simple' and 'complex' do not necessarily square with insights into universals of syllable structure.

To begin, consider the treatment of nasal + plosive sequences. Maddieson treats these as single consonants, the so-called prenasalized stops, thus classifying Umbundu and Mba as languages which allow simple CV syllables only. Smith (2008), in his discussion of creole phonology, treats these sequences as clusters instead. Maddieson's treatment relegates the complexity of these sequences to the phoneme inventory, whereas Smith's treatment results in the recognition of complexity at the syllable level. The application of Maddieson's approach means that Saramaccan and Ndyuka, like the Bantu languages in Maddieson's survey, are classified as allowing 'simple' (C)V syllables only. A reevaluation of the treatment of CC sequences of this kind would dramatically change the categorization of these languages from 'simple' to 'complex'.⁶

A more critical issue in identifying syllable complexity arises from the observation that syllables which would be considered ill-formed word-internally, are often tolerated at the edge of the syllabification domain (Goldsmith 1990: 123–150, Blevins 1995: 222), i.e. word-initially or word-finally. Thus, English famously allows clusters of up to three consonants initially and four finally, but does so only at the margins of the word; word-internally, English would rank with Maddieson's 'moderately complex' syllable structure languages, allowing CV(V)(C) syllables. Nor is English alone in this regard. The question then becomes how a language deals with unlicensed segments at word margins: does it choose deletion (as is the historical fate for instance, of initial /s/ in Jamaican *tuon*); salvaging via epenthesis (as is the case for initial /s/ in Saramaccan *sitonu*); or salvaging via adjunction (as in English *stone*, the historical source for the Jamaican and Saramaccan forms)? Shifting the burden of ascertaining complexity to the treatment of segments at

6. A similar issue is that of the treatment of complexity in the nucleus, which is not considered in Maddieson's survey, hence also not in Klein's. Quantity-sensitive stress systems favor heavy syllables for stress; languages with such stress systems frequently allow long vowels and/or diphthongs, where other languages syllabify such sequences into separate syllables. English and Jamaican are in the former category, thus increasing the potential complexity of word-internal syllables by allowing a VV Nucleus, where other languages, including Saramaccan, would allow only V.

word margins is hardly a promising route to go: given a choice between deletion, epenthesis, or adjunction, how would we determine which is more complex?⁷

Finally, there is a tenuous relation between Maddieson's notions of 'simple' and 'complex' syllables and the interpretation of these notions in markedness theory. That CV syllables are considered unmarked is uncontroversial, but V syllables are not at all the same, although they are included with CV syllables in Maddieson's category 'simple': if anything, Onsetlessness is considered marked, especially word-internally. It is unsurprising, therefore, that the distribution of Onsetless syllables is usually quite restricted compared to that of CV syllables, for instance to word-initial unstressed position. Thus, it is cross-linguistically unusual that Saramaccan routinely allows Onsetless syllables word-internally (e.g., trisyllabic *bèèè* 'bread'), making Saramaccan marked or complex in this regard.

Summing up, there are fundamental issues with Maddieson's categorization of syllable types. Klein's finding that creole languages are of 'average' complexity in their syllable structures points to deletion and epenthesis as the more common treatment of marginal segments in (mostly European-lexifier) creoles, as opposed to adjunction, which is the common choice of their (mostly European) lexifiers. Moreover, some kinds of complexity have not been taken into account. It is not at all clear, then, that any conclusions with regards to syllable structure complexity can be drawn on the basis of the categorization of Maddieson (2008). Combined with the underrepresentation of non-European-lexifier creoles, it is hard to see how one could arrive at a position on this aspect of the structure of creoles generally.

Despite its descriptive focus — or perhaps because of it — it is possible to raise objections to the categorizations of many of the features surveyed in the WALS. This does not, of course, invalidate the WALS as a resource for creolists, whether typologically inclined or not. Seeing the range of structures and interpretations documented in the WALS can throw a different light on creole language data in a field which is often too wrapped up in its own concerns to take note of relevant findings elsewhere, or to make its own insights relevant to noncreolists, as argued by Winford (1996a). In fact, the accessibility of the WALS may finally help bridge the gap between creolists and noncreolists. But a critical view remains necessary, and simply adopting the categorizations of the WALS also means adopting the theoretical assumptions inherent in those categorizations.

7. Current constraint-based approaches to the typology of phonological systems treat differences as the reflection of language-specific rankings of universal constraints. Thus, the language-specific outcome of the choice between deletion, epenthesis, or adjunction results from processes of evaluation against highly ranked constraints. It is not clear that the notion of complexity plays a role in constraint ranking.

4. Ranking complexity: Counting the uncountable

Parkvall (2008) is characteristically ambitious in attempting a global assessment of structural complexity against which to measure both creole and noncreole languages.⁸ He does so using a selection of 53 WALS features, and an additional 6 features drawn from other typological work. Using the categorization of features provided in WALS, Parkvall's selection includes 5 phonology features; 5 morphology features; 15 features pertaining to nominal categories drawn from WALS, and an additional 5 from other sources; 3 nominal syntax features; 9 WALS features pertaining to verbal categories, and one more from another source; 10 features pertaining to simple clauses. (The listing of features can be found in Table 2 below.) Although only 5 of Parkvall's features are explicitly categorized in the WALS as pertaining to morphology, quite a few of the nominal and verbal categories are concerned with overt morphological marking, reflecting the typologists' preoccupation with this area of grammar. Despite his best efforts, it is virtually impossible for Parkvall not to inherit this bias. Thus, features which are obviously aimed at identifying morphological marking include at least overt marking of direct object (Parkvall's F06), gender features (F11–13, F19), inclusivity (F17), person marking on adpositions (F21), morphological future, imperative and optative (F32,34,35), passive, antipassive and applicative (F41–43), as well as non-WALS features such as various types of marking on demonstratives (F48–50).⁹

Parkvall selected his features for gradability, either in terms of the presence or absence of a feature, or in terms of the number of distinctions made. The categories for each feature score between 0 to 1, and the addition of the scores for a given language divided by the number of features scored yields its rank relative to other languages. Scoring was done for 155 languages surveyed in WALS, selected such that values could be assigned for at least 30 of Parkvall's 53 features, resulting in complexity scores ranging from a low of .15 for Sango and .18 for Pirahã, to a high of .62 for Burushaski; the next highest scores are .57 for Copainalá Zoque

8. Nichols (2009) engages in a rather similar exercise. She takes as measures of complexity the number of elements in subsystems of grammar, the number of paradigmatic variants, the existence of syntagmatic dependencies, and a variety of constraints (111f). Her sample of 68 languages includes Tok Pisin as the sole creole representative; it scores at 15.8 compared to a mean score of 18.01.

9. This bias towards morphology may not be accidental. Deutscher (2009: 248) points out that 'as one proceeds up the ladder of subsystems of language, from phonology to morphology to syntax and finally to semantics, it becomes more difficult to draw the line between the set of supposedly recurrent patterns (grammar) and the set of idiosyncrasies (lexicon) in anything but an arbitrary way. This is why in practice, almost all discussions of complexity in language have concentrated on phonology and morphology, and on some restricted areas of syntax.'

and Khoekhoe. I refer the reader to Parkvall (2008:273) for details of the scoring methods (but footnotes in Table 2 below explain that the details are not always clear). Parkvall scored 29 pidgins and creoles in similar fashion. His lowest scoring language is Russenorsk, at 0.00, the next lowest score is Bislama at .13; the highest score is .33 for Papiamentu. The mean score for his 155 WALS languages is .41; all 29 pidgin and creole languages score well below this figure. These scores suggest that pidgins and creoles cluster towards the lower end of his complexity scale. Parkvall concludes that '[t]ypologically speaking, creoles stand out from languages in general, and the most salient difference is that they present a lower structural complexity' (283).

Before I demonstrate in some detail the scoring problems for the specific case of Papiamentu, let us consider the usefulness of Parkvall's ranking exercise in general terms. His basic assumption is that constructions can be considered more complex if their formation involves more material — similar to McWhorter's (2001) approach to simplicity.¹⁰ As an example, Parkvall points to the 'grammatical markings' that languages may be 'adorned with' to different extents, as in the following examples:

- (1) English: *He is a student*
 French: *Il est Ø étudiant*
 Russian: *On Ø Ø student*
 3SG.M COP.3SG.PRES INDEF student
 (Parkvall 2008:266)

Interestingly, Parkvall's representation suggests that all three languages are equally 'adorned' with grammatical markings, the difference being in their overt presence as opposed to covert presence. McWhorter (2001) similarly makes it clear that it is overt expression which he considers to contribute to complexity:¹¹

10. Parkvall does not adhere to a construction complexity criterion for all his features. Consonant and vowel inventory sizes are clearly not of this kind. Indirectly, one might expect a correlation between the size of an inventory and the complexity of phonemes, in terms of the amount of pre-specified phonological structure which must be assumed for some phonemes in such an inventory. Thus, a large consonant inventory (34 or more consonants, using Maddieson's categorization of inventory size) can be expected to include more marked consonants than a small consonant inventory; note, though, that the reverse does not necessarily hold. Also, while the presence or absence of gender marking may contribute to construction complexity, the number of different gender markers and their precise semantic categorizations are independent of construction complexity; similar observations apply to several more of Parkvall's features.

11. To be sure, it is not entirely clear that mere overt expression suffices to make a language more complex, in McWhorter's view. Thus, he talks about 'degree of overt signaling of various phonetic, morphological, syntactic, and semantic distinctions **beyond communicative necessity**'

The guiding intuition is that an area of grammar is more complex than the same area in another grammar to the extent that it encompasses more overt distinctions and/or rules than another grammar... (135)

In contrast, Aboh & Smith (2009:6) point to the functional equivalence between overt and covert material. They conclude:

...while it might be interesting to count overt morphological distinctions in languages, the differences in number of types of morphemes make no sense in terms of morphosyntactic complexity, unless they tell us exactly how overt morphemes and covert morphemes interact at the interfaces, and how they may burden or alleviate syntactic processing by virtue of being overt or covert. (7)

This point may be illustrated with reference to various contributions to Baptista & Guéron (2007), which make it clear for several creole languages that bare nouns may appear with definite interpretations, pointing to covert definiteness marking. Additionally, the coexistence of overt and covert definiteness marking in a single language is an indication that different types of definiteness or specificity may need to be distinguished (relevant to Parkvall's features 15 and 16). A related observation is that Stewart (2007), in her contribution to that volume, presents arguments for the presence of a covert Classifier in Jamaican Creole, whose job it is to individuate (relevant to Parkvall's feature 25 'Obligatory numeral classifiers'); it may well be that her arguments can be / should be extended to other languages which appear not to have numeral classifiers at the surface. Stewart (2007: 384ff) also argues that postnominal *dem*, which most authors have considered to be the Jamaican plural marker, in fact marks inclusiveness, and that plural is unmarked (relevant to Parkvall's feature 14 'Grammaticalized nominal plural').

In short, surface expression cannot be the sole determinant of the presence of functional material. As Aboh & Smith point out, a construction containing an overtly marked distinction cannot be considered more complex than a construction containing an equivalent covert morpheme marking that distinction. Parkvall's selection of features includes several which denote functional categories or functional relations which are not universally marked overtly. These are case marking (F06,F07,F50), possession marking (F08,F09,F26), number marking (F14 and possibly F16), definiteness or specificity marking (F15,F16), Tense marking

(2001: 125; my emphasis), and he refers to 'older natural language grammars as vastly OVER-SPECIFIED systems in comparison to the requirements of Universal Grammar' (161; my emphasis) — suggesting that some amount of overt expression exists which does *not* contribute to complexity, since it is there for reasons of 'communicative necessity', or because of 'the requirements of Universal Grammar'. However, McWhorter proceeds without a clearly articulated view of either 'communicative necessity' or 'the requirements of Universal Grammar', and simply resorts to counting the numbers of distinctions which are overtly marked.

(F30,F31), Aspect marking (F29,F33), and possibly others. Assigning a higher score (more complex) to a language which uses overt markers for any of these, as opposed to a lower score (less complex) to a language which uses covert markers, is of questionable legitimacy.

Since what is counted as contributing to complexity by Parkvall very often comes down to counting overt morphology, the inclusion of several interdependent features further skews his results. The inclusion of interdependent features gives languages an opportunity to 'score' twice (or more times), or to 'fail to score' twice (or more times). Thus, Parkvall's F11 notes the existence of gender, F12 follows up by counting the number of genders distinguished, and F13 signals non-semantic gender assignment. Any one of these features alone would have sufficed to note the existence of grammatical gender in a language. Because of their interdependence, 0 score on F11 automatically means 0 on F12 and 0 on F13. Out of a total of 53 features in Parkvall's selection, 23 features display interdependence; they include:

- F7 'double marking of direct object' depends on having any kind of marking at all, and implies F6 'overt marking of direct object.'
- F8 'possession by double marking,' F26 'possessive classification' and F52 'alienability distinctions' all depend on having possessive marking; a positive score on any of these implies a positive score on F9 'overt possession marking.'
- F12 'number of genders' and F13 'non-semantic gender assignment' depend on having grammatical gender; a positive score on any of these implies a positive score on F11 'gender,' and a positive score on F13 also implies F12.
- F48 'demonstratives marked for number,' F49 'demonstratives marked for gender' and F50 'demonstratives marked for case' depend on having demonstratives in the first place, hence imply F18 'distance contrast in demonstratives.'
- F24 'suppletive ordinals beyond "first"' depends on having ordinals, hence on a positive score on F23 'ordinals exist as a separate class beyond "first."'
- F31 'remoteness distinctions of past' depend on having grammaticalized past at all, hence on F30 'grammaticalized past/non-past.'
- F37 'both indirect and direct evidentials' depends on the existence of grammaticalized evidentiality, as per F36 'grammaticalized evidentiality distinctions.'
- F38 'non-neutral marking of full NPs' and F39 'non-neutral marking of pronouns': this feature pertains to Case marking, and there is obvious interdependence between Case marking of different types of nominals; in particular, it is unlikely for full NPs to be Case-marked unless pronouns are Case-marked too.
- F46 'equative copula $\neq$ locative copula': a distinction between equative and locative copula cannot be made unless there is an equative copula, as per F47 'obligatorily overt equative copula.'

If we were to resolve this interdependence by keeping only the most basic feature out of each of these ten sets, the number of features in Parkvall's list would be reduced by 14 to 39. In the following section, where I consider the complexity score assigned to Papiamentu, we will see how this has the potential to affect the ranking of a language.

Finally, questions can be raised with regards to Parkvall's weighting of different subsystems of grammar, and with regards to his assumption that what he considers to be complexity in different subsystems of grammar can be added up to a global measure of complexity. To start with the former, assuming his list of 53 features (see Table 2), it follows that, for instance, the size of the consonant inventory has 1/53rd to contribute to such a global measure — as much as the contribution made by having different forms for comitative and instrumental, or having reduplication, or having numeral classifiers, or doubly marking a subject, or having a passive construction. On the other hand, demonstratives and articles contribute a total of 6/53rd — more than all phonology features combined (5/53rd), and more than any other subsystem of grammar. Other big contributors are pronouns, various kinds of case marking, and tense/aspect marking (5/53rd each), possession (4/53rd), and gender (3/53rd). Completely absent are features of the complementizer system, question formation, reflexives and anaphoric domains, control, etc. In sum, the weighting of different subsystems of grammar appears arbitrary, and cannot possibly be considered to represent their contribution to global complexity in any intuitive sense.

Moreover, complexity in each of the subdomains is counted differently. In some it is based on the number of distinctions (e.g. the number of genders, the number of distance contrasts in demonstratives), in others on the size of an inventory (consonants, vowels), in others on the mere presence or absence of a construction (e.g. passive, equative copula, reduplication), in others on the number of distinct forms (suppletion, ordinals), etc.¹² As argued by Deutscher (2009: 249), even if complexity values can be established for each subdomain in some satisfactory way, their addition is meaningless:

...the series of values which will result from these subdomains will not be amenable to summation, since the parts to be counted in the different subdomains will be of very different natures, and will thus be incommensurable.

12. A radically different approach is suggested by Hawkins (2009), which takes as its basic premise that rapid delivery and minimal processing contribute to efficiency in communication. Efficiency, he claims, can be measured by considering syntactic domains, access to syntactic and semantic representation, and formal complexity. His discussion includes an argument in favor of the idea of complexity trade-offs: efficiency in one area, he argues, is matched by inefficiency in another (254ff).

This type of scoring metric looks rather like an exercise in adding apples and pears, or, worse, apples and fish — hardly an insightful exercise when the objects added are simply not comparable.

Table 2. Papiamentu scores on Parkvall's 53 features (dependent features in shaded cells)¹³

Parkvall's feature (and WALS feature number)	Parkvall's comment	my comment	my score
F1 consonants (1)	average	24 consonants = average	.5
F2 vowels (2)	large	9 vowels = large	1
F3 phonemic vowel nasaliza- tion (10)	no	no	0
F4 complexity of syllable structure (12)	complex	complex	1
F5 tone (13)	simple	two levels = simple	.5
F6 overt marking of direct object (23)	no	only the treatment of object nouns is considered by the WALS feature; those are not marked in any way ¹⁴	0
F7 double marking of direct object (23)	no	no (follows from F6)	0
F9 overt possession marking (24)		by <i>di</i> 'of' or by the 3rd person possessive pronoun, e.g. <i>kas di mi ruman</i> [house of 1sg sibling] / <i>mi ruman su kas</i> [1sg sib- ling 3poss house] 'my sister's house'; ¹⁵ juxtaposition/construct state possessives are not acceptable	1
F8 possession by double marking (24)	no	no	0

13. Note that the information provided by Parkvall does not include actual scores, only comments from which the scores can be deduced, given his general scoring method (as set out in Parkvall 2008: 273) and the distinctions made in the WALS.

14. Pronominal objects are marked prosodically (by encliticization); also, the suppletive form *bu* of the 2sg pronoun *bo* marks it as object in the Curaçao variety.

15. I am not entirely clear on the scoring of Parkvall's feature 9; the relevant WALS feature 24 distinguishes 5 options: head-marking, dependent-marking, double marking, no marking, other types. I have treated this feature as binary, i.e., no marking scores 0, any marking at all scores 1. Parkvall's feature 26 corresponds to WALS feature 59. There, the following options are listed: No possessive classification, Two classes, Three to five classes, More than five classes. I assumed that no possessive classification is scored 0, two and three to five classes .5, more than five classes 1.

Table 2. (continued)

Parkvall's feature (and WALS feature number)	Parkvall's comment	my comment	my score
F26 possessive classification (59)		possessor + <i>su</i> + possessed is disfavored with nonhuman possessors, pointing to a $\pm$ human classification; phrasal possessives using <i>di</i> are strongly disfavored for body part possessives, pointing to a $\pm$ alienable classification	.5
F52 alienability distinctions	no	yes, see F26	1
F10 reduplication (27) ¹⁶	yes	yes	1
F11 gender (30–32)	no	highly restricted	.5
F12 number of genders (30)	0	2	.25
F13 non-semantic gender assignment (32)	no	no	0
F14 grammaticalized nomi- nal plural (33–34)		yes	1
F15 definite articles (37)	yes	yes	1
F16 indefinite articles (38)	yes	yes	1
F17 inclusivity (39–40)	no	no	0
F18 distance contrast in demonstratives (41)	no	3-way, e.g. <i>e kas aki /ei /aya</i> 'this house, that house, the house yonder'	.5
F48 demonstratives marked for number	no	e.g. <i>eseinan</i> [one-DEM-PL] 'those ones'	1
F49 demonstratives marked for gender	no	no	0
F50 demonstratives marked for case	no	no	0
F19 gender in pronouns (44)	no	no	0

16. WALS feature 27 sorts languages into three categories: those that do not employ reduplication as a grammatical device, those that productively employ both partial and full reduplication, and those that only employ full reduplication. Parkvall simply counts having reduplication or not having reduplication, without further distinction. Note that earlier scholarship has tended to treat reduplication as a hallmark of simplicity, associating it with pidginization — a view which was dispelled by Bakker (2003). Parkvall's treatment suggests the opposite: that it should be a mark of complexity. Instead, a more differentiated approach might be called for, as argued by Kouwenberg & LaCharité (2003).

Table 2. (*continued*)

Parkvall's feature (and WALS feature number)	Parkvall's comment	my comment	my score
F20 politeness in pronouns (45)		pronoun avoidance ¹⁷	1
F21 person marking on adpositions (48)	no	no	0
F22 comitative ≠ instrumen- tal (52)		no, both are <i>ku</i> 'with'	0
F23 ordinals exist as a sepa- rate class beyond 'first' (53)	yes	yes	1
F24 suppletive ordinals beyond 'first' (53)	yes	optionally; compare <i>segundo</i> 'second' with <i>di dos</i> [of two] 'second'	1
F25 obligatory numeral clas- sifiers (55)	no	no, at least not overtly	0
F27 conjunction 'and' ≠ adposition 'with' (63)		<i>i</i> 'and', <i>ku</i> 'with'	1
F28 difference between nominal and verbal conjunc- tion (64)	yes	<i>i</i> 'and' for verbal conjunction, either <i>i</i> 'and' or <i>ku</i> 'with' for nominal conjunc- tion (with different interpretations)	1
F29 grammaticalized perfec- tive/imperfective (65)	yes	preverbal <i>a</i> marks perfective	1
F30 grammaticalized past/ non-past (66)	yes	preverbal <i>tabata</i> marks past	1
F31 remoteness distinctions of past (66)		no	0
F32 morphological future (67)	no	no	0
F33 grammaticalized perfect (68)		<i>yega di V</i> (literally: 'reach of Verb'), <i>V</i> <i>kaba</i> 'Verb already' ¹⁸	1

17. WALS feature 45 'Politeness distinctions in pronouns' distinguishes the following: no politeness distinction; binary politeness distinction; multiple politeness distinctions; pronoun avoidance. For scoring purposes, I have assumed a division into 'no politeness distinction' at 0, any politeness distinction at 1. Avoidance of 2nd person pronouns for politeness results in the use of terms of address as pronouns, e.g. *Shon ta bon?* [Mr./Ms. COP good], *Mener ta bon?* [Mr. COP good], *Yüfrou ta bon?* [Miss COP good] instead of *Bo ta bon?* [2sg COP good] 'Are you all right?'

18. The corresponding WALS chapter speaks of perfects as being overwhelmingly periphrastic, in contrast with pasts and perfectives which are overwhelmingly inflectional, and of the possibility that pasts and perfectives arise from perfects. The WALS options for perfect include (1) from possessive; (2) from 'finish', 'already'; (3) other perfect; (4) no perfect. I have taken

Table 2. (continued)

Parkvall's feature (and WALS feature number)	Parkvall's comment	my comment	my score
F34 morphological impera- tive (70)	no	yes: prosodically marked; compare <i>kome</i> with LH melody 'to eat', HL melody 'eat!'	1
F35 morphological optative (73)	no	no; note that the preverbal mood marker <i>lo</i> can express an optative	0
F36 grammaticalized eviden- tiality distinctions (76)	no	<i>por</i> 'can' (possibility) can be either situational or epistemic; the expression of necessity cannot: <i>mester/tin ku</i> 'must, have to' (situational) vs. <i>ta posibel</i> 'is possible' (epistemic) ¹⁹	.5
F37 both indirect and direct evidentials (77)	no	no	0
F38 non-neutral marking of full NPs (98)	no	no (this feature pertains to case marking)	0
F39 non-neutral marking of pronouns (99)		yes, prosodically; also 2sg: <i>bo</i> (non-object) vs. <i>bu</i> (object form)	1
F40 subject marking as both free word and agreement (101–102)	no	no	0
F41 passive (107)	yes	yes	1
F42 antipassive (108)	no	no	0
F43 applicative (109)	no	no	0
F44 obligatorily double negation (112)	no	no	0
F45 asymmetric negation (113)		negation is prosodically marked ²⁰	.5

Parkvall's 'grammaticalized perfect' to refer to options 1–3. Papiamentu *kaba* 'already' is assumed to have evolved from serial use of *kaba* 'finish' (option 1); I have treated the construction *yega di* as an instance of option 3.

19. The corresponding WALS feature distinguishes these options: (1) The language has markers that can code both situational and epistemic modality, both for possibility and for necessity; (2) The language has markers that can code both situational and epistemic modality, but only for possibility or only for necessity; (3) The language has no markers that can code both situational and epistemic modality. I have assumed option (1) to score 0, option (2) — which is the one that is applicable — to score .5, option (3) 1.

20. WALS feature 113 pertains to the marking of the distinction between declaratives and negatives by structural changes made in addition to the presence of a negative morpheme; Parkvall

Table 2. (*continued*)

Parkvall's feature (and WALS feature number)	Parkvall's comment	my comment	my score
F47 obligatorily overt equative copula (120)	yes	yes	1
F46 equative copula $\neq$ locative copula (119)	yes	no	0
F51 total amount of verbal suppletion ²¹	0	three pairs ²¹	.25
F53 number of pronominal numbers	two	three (first, second and third person)	.75
score, averaged over 53 features			.49
score, averaged over 39 non-dependent features only			.54

5. The problem of misrepresentation: For example Papiamentu

Despite my general misgivings about an exercise of this type, I will rescore one creole language, Papiamentu, simply to demonstrate how problematic the scoring is. We will see a significant difference between Parkvall's score and mine — a difference which is most readily explained by insufficient familiarity with the language and with the sources which describe it. In fact, few authors would have been able to achieve a sufficient level of familiarity given that some of the relevant work is published in obscure sources and/or written in Papiamentu. Parkvall's lack of familiarity with Papiamentu is seen, for instance, in the fact that no value was assigned by him for 10 features (those without scores for 'Parkvall's comment' in Table 2). Table 2 sets out the features, reorganised, where relevant, to reflect interdependence.

(2008: 272, fn.b), on the other hand, clarifies this feature as meaning 'that the negated sentence differs from its positive counterpart in other ways than the mere addition of a morpheme'. I have counted the prosodic changes which accompany the presence of the negative marker *no* as .5, as it does not involve changes as intended by the WALS feature, but does qualify according to Parkvall's clarification. It is worth noting that the prosodic properties of different kinds of constructions are not (yet) well understood.

21. For this feature, Parkvall refers to a source which is inaccessible to me. I have used Nichols et al. (2004), which contains a list of 18 intransitive/transitive predicate pairs (156); they designate as 'suppletion' cases where the members of the pair are distinct and underived verbs (152). The Papiamentu pairs which involve suppletion are 2. die – kill *muri* – *mata*, 6. see – show *mira* – *mustra*, 8. fear – frighten *tin miedu* [have fear] – *spanta*. I assumed that 3 pairs might merit .25.

Recall that Papiamentu is the highest scoring creole language in Parkvall's complexity ranking, at .33, and that this compares unfavorably with his 155 WALS languages, where scores range from a low of .15 to a high of .62, with a mean score of .41. But we see here a stunning disparity between Parkvall's Papiamentu score of .33 and my most conservative score of .49. Although Parkvall makes no pronouncements about a possible split in the scoring into simple–average–complex, it seems clear that Papiamentu scores closer to the complex end than to the simple end of his range; this is even more true where interdependence between features is removed, resulting in a score of .54.²²

It is true that, in typological surveys, no author is expected to be completely familiar with all languages surveyed; reliance on a variety of sources is unavoidable, and it is possible for individual languages to be misrepresented as a result. Likewise, Parkvall cannot be expected to have complete familiarity with all 29 creole (and pidgin) languages which he surveys. But it is unfortunate, to say the least, that such far-reaching conclusions should be based on such shaky foundations. Many readers are likely to take Parkvall's scores at face value, assuming their general validity. I shudder to think how different the scoring is likely to be for other languages in the set which could be rescored by specialists with intimate knowledge of the relevant languages. But for how many of Parkvall's 29 pidgin and creole languages do we even have such specialists available? Kusters & Muysken (2001: 183) remind us: 'The sad fact is that we know very little about most creole languages.' This is a sobering observation indeed.

6. Conclusion

As Winford (1996b: 314) points out, the question of creoles and typology 'deserves more attention than it has been receiving in the recent past.' Nearly 15 years later, that attention appears to have come, finally, in the wake of the publication of McWhorter's simplicity hypothesis. Parkvall and Klein are only two of many papers which fall within this renewed debate. What makes them notable is that their work attempts to characterize the degree of complexity of creole languages, taken as a class of languages, within the framework provided by typological surveys, aided especially by the availability of the typological surveys contained within the WALS. Klein concludes that creole languages are 'average' in terms of their phonologies, Parkvall concludes that creole languages cluster towards the 'simple' end

22. Rescoring of Parkvall's WALS languages for non-dependent features only will not have much of an effect on the highest-scoring languages, but is likely to move languages scoring around the mean of .41 somewhat closer to the complex end.

of a global complexity scale. Both authors claim that creoles, as a class, are more uniform than noncreole languages.

In view of the centrality of questions of typology to our field, and our lack of progress in achieving an understanding of and consensus on the notion 'creole prototype', finding a new approach to creole typology is potentially meritorious and rewarding. However, as Winford put it in 1996, '...the idea of charting the similarities and differences among creoles is a very worthwhile one. I just think that it requires a much more standardized and reliable methodology than has been used so far.' (1996b: 318) Unfortunately, the WALS may not be the place to look for such a methodology. As I pointed out in my first column, linguistic typology can benefit from access to reliable creole language data in the same way that it benefits from access to data in any natural language — provided, of course, typologists are willing to treat creole languages as they do other natural languages. The reverse is equally true: students of creole languages, who, too often, are caught up in petty field-internal debates, can benefit from knowing the current state-of-the-art in linguistic typology in obvious, noncreole-specific ways. But can we, creolists, expect to derive more particular benefits from a closer association between creole studies and linguistic typology? In my opinion, this remains to be demonstrated.

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